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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,358	04/12/2001	Robert M. Smith	5072	3803

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Milliken & Company
P. O. Box 1927
Spartanburg, SC 29304

EXAMINER

MORRIS, TERELL H

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,358

Applicant(s)

SMITH ET AL.

Examiner

John J. Guarriello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 and 35-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-25, 27-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

15. The Examiner acknowledges the response and amendment of 11/24/2003.

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

17. The Examiner affirms the election of claims 18-34, Group II. Claims 1-17, Group I, and claims 35-51, Group II, are withdrawn as directed to the non-elected invention. Applicant has no arguments regarding traversal, therefore Restriction is made final for reasons of record.

18. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied

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by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

19. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

20. Claims 18-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "paperless" is the new matter which applicant has put in independent claim 18. It is the Examiner's position that this is not supported in the instant specification as filed and identified by page and line.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-23, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dierks et al. 3,944,698 in view of Cooper et al. 0019181.

Rejection is maintained substantially as in paper of 4/25/2003.

Applicant's arguments regarding cementitious materials versus gypsum have been considered but they are not persuasive because Dierks does describe gypsum which meets the amended language. Moreover, applicant's argument regarding hindsight has been considered, but is not persuasive because it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the invention was made, and does not include knowledge gleaned only from applicant's disclosure, such a

reconstruction is proper, see *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971).

Dierks describes fiber reinforced and improved gypsum wallboard, (see abstract). Dierks describes reinforcing fibers in the form of open fiber mat (corresponding to the claimed nonwoven mat), (column 2, lines 38-67). Dierks describes the fibers are glass (corresponding to the reinforcing claimed fabric layer), (column 2, lines 56-68). Dierks describes stucco slurry (corresponding to the cementitious material), (column 1, lines 10-20). Dierks describes the use of adhesive to secure the materials, (column 3, lines 13-18). Dierks differs from the claimed invention because it is silent about the specific nonwoven mat and it uses paper cover layers.

Cooper describes a cementitious board (corresponding to wall board), (column 3, [0027]). Cooper describes reinforcement can be woven knit, nonwoven or laid scrim open mesh fabric, [0029]. Cooper describes the reinforcement fabric layer or material can be embedded in the cementitious material which fabric is made from glass fibers, [0009, 0016] and can be embedded in the opposite faces, [0016].

Cooper describes a strand count of about 2 to 18 strands per inch which corresponds to the yarn density in threads per inch of the claimed invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the nonwoven fabric material of Cooper in the cementitious material of Dierks motivated with the expectation that the material composite would exhibit improved strength as noted in Dierks, (column 2, lines 38-42) since the incorporation into selected portions corresponds to the embedding of the claimed invention.

22. Claims 18-22, 24, 25, 27-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Pilgrim 4,378,405 in view of Newman et al. 6,054,205.

Rejection is maintained substantially as in paper of 4/25/2003. Applicant's arguments regarding the gypsum slurry have been considered, but Newman still describes the slurry is on the surface which can imply some bleed. Without any specificity of the amount of

flowthrough, this would still be obvious to one of ordinary skill to optimize the amount of flowthrough.

Pilgrim describes a building board which corresponds to the claimed wallboard with a core of cementitious material, (see abstract). Pilgrim describes mineral fibers embedded in the face of the core, (see abstract). Pilgrim describes the fabric or web is nonwoven glass fiber which corresponds to the claimed invention, (see abstract). Pilgrim describes reinforcing glass fibers can be in the form of woven or knitted fabric or scrim and can be a nonwoven fabric or web bonded with suitable synthetic resin, (column 2, lines 46-49). Pilgrim describes the embedded fabric in the core of the cementitious material, (column 3, lines 9-28). Pilgrim describes a continuous film of cementitious material, (column 3, lines 12-14). Pilgrim is silent about the use of adhesive.

Newman describes glass fiber facing sheet for cement boards corresponding to claimed wallboard, (see abstract). Newman describes cement boards with nonwoven mesh facing sheets of

continuous glass yarns, (column 1, lines 15-56). Newman describes adhesive, (column 6, lines 14-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the adhesive of Newman with the fabric layer of Pilgrim motivated with the expectation that the improved bonding of the fabric layer would result in improved dimensional stability of the composite material web as noted in Newman, (column 5, lines 48-49).

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Guarriello whose telephone number is 571-272-1476. The examiner can normally be reached on 8 hr. flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Guarriello
Patent Examiner
Art Unit 1771

February 20, 2004

February 26, 2004



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700